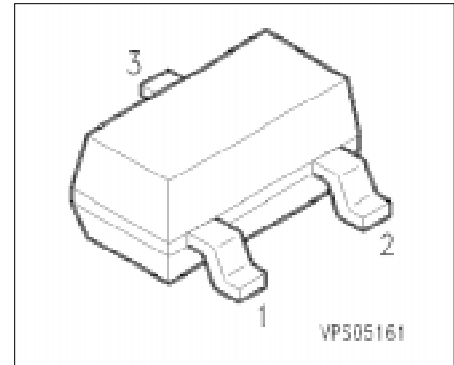


Silicon Schottky Diode

BAT 17...

- For mixer applications in the VHF/UHF range
- For high-speed switching



| Type | Ordering Code (tape and reel) | Pin Configuration | | | Marking | Package |
|-----------|----------------------------------|-------------------|---|-----|---------|---------|
| | | 1 | 2 | 3 | | |
| BAT 17 | Q62702-A504 | A | — | C | 53 | SOT-23 |
| BAT 17-04 | Q62702-A775 | A | C | C/A | 54 | |
| BAT 17-05 | Q62702-A776 | A | A | C/C | 55 | |
| BAT 17-06 | Q62702-A777 | C | C | A/A | 56 | |

Maximum Ratings

| Parameter | Symbol | Values | Unit |
|---|-----------|----------------|------|
| Reverse voltage | V_R | 4 | V |
| Forward current | I_F | 130 | mA |
| Total power dissipation $T_S \leq 60\text{ °C}$ | P_{tot} | 150 | mW |
| Junction temperature | T_j | 150 | °C |
| Operating temperature range | T_{op} | – 55 ... + 150 | °C |
| Storage temperature range | T_{stg} | – 55 ... + 150 | °C |

Thermal Resistance

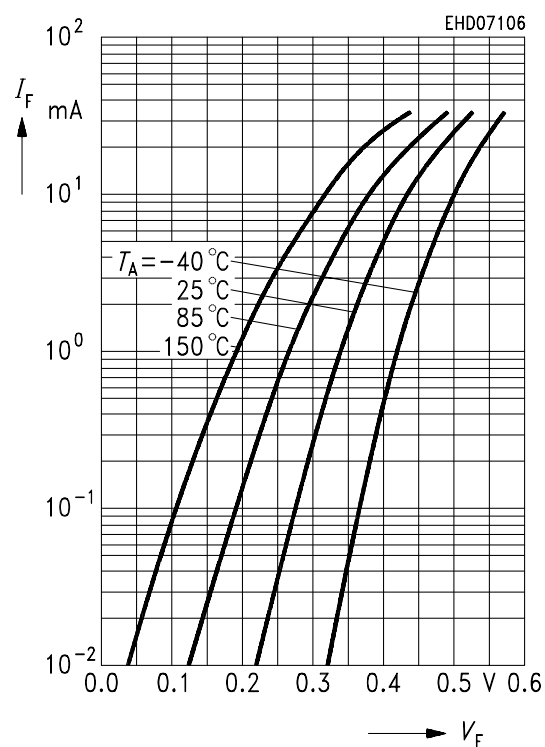
| | | | |
|--------------------------------|--------------|-------|-----|
| Junction-ambient ¹⁾ | $R_{th\ JA}$ | ≤ 750 | K/W |
| Junction-soldering point | $R_{th\ JS}$ | ≤ 590 | K/W |

1) Package mounted on an epoxy pcb 40 mm x 40 mm x 1.5 mm/1cm² Cu.

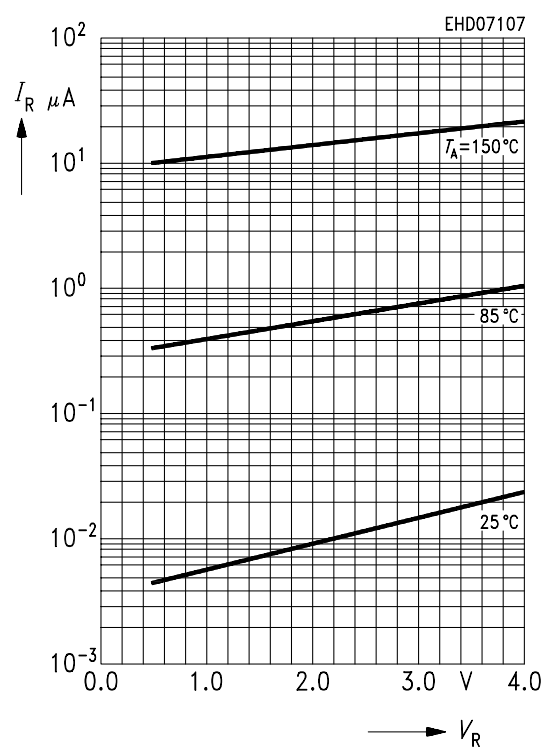
Electrical Characteristicsat $T_A = 25\text{ °C}$, unless otherwise specified.

| Parameter | Symbol | Value | | | Unit |
|---|-------------------|-------------------|-------------------|--------------------|---------------|
| | | min. | typ. | max. | |
| DC Characteristics | | | | | |
| Breakdown voltage $I_R = 10\text{ }\mu\text{A}$ | $V_{(\text{BR})}$ | 4 | — | — | V |
| Reverse current $V_R = 3\text{ V}$ $V_R = 3\text{ V}, T_A = 60\text{ }^\circ\text{C}$ $V_R = 4\text{ V}$ | I_R | — — — | — — — | 0.25 1.25 10 | μA |
| Forward voltage $I_F = 0.1\text{ mA}$ $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ | V_F | 200 250 350 | 275 340 425 | 350 450 600 | mV |
| Diode capacitance $V_R = 0\text{ V}$ $f = 1\text{ MHz}$ | C_T | 0.4 | 0.55 | 0.75 | pF |
| Differential forward resistance $I_F = 5\text{ mA}, f = 10\text{ kHz}$ | r_S | — | 8 | 15 | Ω |

Forward current $I_F = f(V_F)$

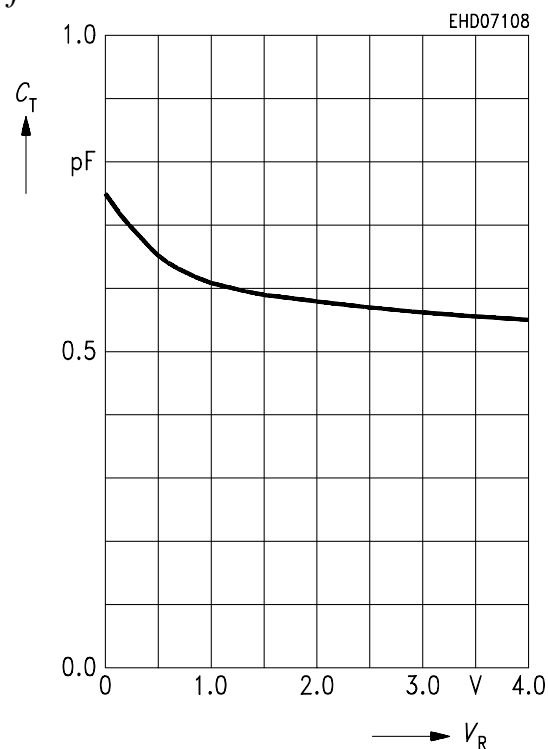


Reverse current $I_R = f(V_R)$



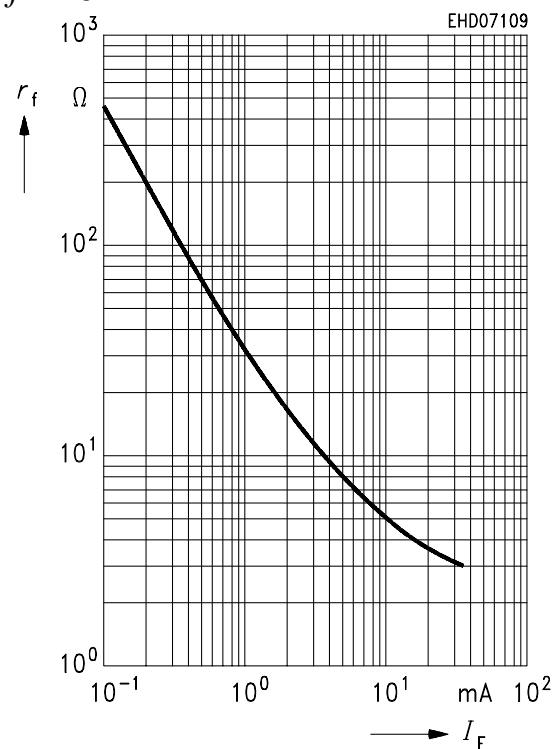
Diode capacitance $C_T = f(V_R)$

$f = 1 \text{ MHz}$



Differential forward resistance $R_F = f(I_F)$

$f = 10 \text{ kHz}$



Forward current $I_F = f(T_A; T_S^*)$

*Package mounted on aluminum

